

CLAIMS

WHAT IS CLAIMED IS:

1. A device for adjusting and locking a strap, said device comprising:
a base portion, said base portion including a base having a first and a second side and a front and a back, a first sidewall extending away from said first side of said base, said first sidewall defining a window, a second sidewall extending away from said second side of said base, said second sidewall defining a further window; and
a door portion cooperating with said base portion, said door portion having a first and a second edge, said door portion including a locking bar having a first and a second end, said locking bar extending between said first and second edges of said door portion, said first end of said locking bar defining a first positioning dial, said second end of said locking bar defining a second positioning dial such that in use of said device, said first positioning dial is movably located within said window and said second positioning dial is movably located within said further window; wherein
said window has a cam surface which cooperates with said first positioning dial, and said further window has a further cam surface which cooperates with said second positioning dial such that in use of said device, with the strap disposed between said base and said locking bar, the strap is locked against movement relative to said device when said door portion is disposed in a locking disposition thereof relative to said base portion, and the strap is movably adjustable relative to said device when said door portion is pivoted relative to said windows to an adjusting disposition thereof.
2. A device as set forth in claim 1, wherein said base defines a roughened surface, said roughened surface reacting with the strap when said door portion is disposed in said locking disposition thereof so that the strap is locked between said roughened surface and said locking bar.

3. A device as set forth in claim 1, wherein said base defines a plurality of teeth like members adapted to react with the strap when said door portion is disposed in said locking disposition thereof so that the strap is locked between said members and said locking bar, said teeth like members being of a flexible nature for accommodating varying thicknesses of the strap.

4. A device as set forth in claim 1, wherein said first sidewall has a first and a second end, said second sidewall has a first and a second extremity, said first end of said first sidewall and said first extremity of said second sidewall being spaced a first distance relative to each other, and said second end of said first sidewall and said second extremity of said second sidewall being spaced a second distance relative to each other, said second distance being less than said first distance.

5. A device as set forth in claim 1, wherein said window is of generally triangular shaped configuration, and said further window is of generally triangular shaped configuration.

6. A device as set forth in claim 5, wherein said triangular shaped window has an apex which is disposed remote relative to said cam surface, and said triangular shaped further window has a further apex which is disposed remote relative to said further cam surface, such that said first positioning dial is movably disposed between said apex and said cam surface, and such that said second positioning dial is movably disposed between said further apex and said further cam surface.

7. A device as set forth in claim 1, wherein said door portion includes a handle which extends away from said locking bar and between said first and second edges of said door portion for permitting pivoting of said locking bar between said locking and said adjusting dispositions of said device.

8. A device as set forth in claim 1, wherein said door portion includes a first and a second reinforcing rib extending respectively along said first and second edges of said door portion for reinforcing said door portion.

9. A device as set forth in claim 1, wherein said first positioning dial defines a first angled surface which permits assembly and retention of said first positioning dial within said window, and said second positioning dial defines a second angled surface which permits assembly and retention of said second positioning dial within said further window.

10. A device as set forth in claim 1, wherein said first positioning dial defines a first locking rib, and said second positioning dial defines a second locking rib, such that said locking ribs maintain said positioning dials relative to said respective cam surfaces in such a manner that said device is selectively maintained in said locking disposition thereof for locking the strap relative to said device, and said device is selectively maintained in said adjusting disposition thereof for adjusting the strap relative to said device.

11. A device as set forth in claim 10, wherein said cam surface includes a first portion that reacts and cooperates with said first locking rib for maintaining said door portion in a closed disposition thereof so that said device is in said locking disposition thereof, and a second portion that reacts and cooperates with said first locking rib for maintaining said door portion in an open disposition thereof so that said device is in said adjusting disposition thereof, and wherein said further cam surface includes a first member that reacts and cooperates with said second locking rib for maintaining said door portion in a closed disposition thereof so that said device is in said locking disposition thereof, and a second member that reacts and cooperates with said second locking rib for maintaining said door portion in an open disposition thereof so that said device is in said adjusting disposition thereof.

12. A device as set forth in claim 11, wherein said door portion moves approximately 90 degrees between said open and closed dispositions thereof.

13. A device as set forth in claim 11, wherein said cam surface defines an intermediate portion which is disposed between said first and second portions for facilitating pivoting of said door portion between said closed and open dispositions thereof, and wherein said further cam surface defines a further intermediate member which is disposed between said first and second members for facilitating pivoting of said door portion between said closed and open dispositions thereof.

14. A device as set forth in claim 13, wherein said door portion moves approximately 100 degrees between said open and closed dispositions thereof.

15. A device as set forth in claim 1, wherein said cam surface is disposed within said window such that an opening is defined by said window and said cam surface for the pivotal reception therein of said first positioning dial, and wherein said further cam surface is disposed within said further window such that a further opening is defined by said further window and said further cam surface for the pivotal reception therein of said second positioning dial.

16. A device as set forth in claim 1, wherein said device is used for locking and adjusting a strap of a bicycle helmet.

17. A device for adjusting and locking a strap, said device comprising:
a base having a first sidewall and a second spaced apart sidewall, each sidewall having an opening extending therethrough;
a first, generally flexible wall located in the opening in the first sidewall, the first wall including a first camming surface, such that the first camming surface is spaced from and opposite to a first socket portion provided in the opening in the first sidewall;
a second, generally flexible wall located in the opening in the second sidewall, the second wall including a second camming surface, such that the second camming surface is spaced from and opposite to a second socket portion provided in the opening in the second sidewall; and
a door operatively connected to the base, the door having a locking bar that includes a first positioning dial on one end thereof and a second positioning dial on an opposite end thereof, each positioning dial mating with the associated socket and cooperating with the respective camming surface so as to allow for pivotable movement of the door, and each positioning dial including a locking rib extending therefrom, such that in an open position, each locking rib is positioned in a first position between a surface of the associated wall and a surface of the associated sidewall so that absent an intervening force, the door will remain open thereby allowing a strap positioned between the base and the locking bar to be adjusted, and such that when the door is caused to close, the locking ribs are caused to engage the associated wall thereby causing the flexible walls to flex so as to allow the locking ribs to be moved from the first position to a second position, the flexible walls being adapted to urge the locking ribs into the second position so that once in the second position, absent another intervening force, the door will remain closed thereby locking the strap in place between the base and the locking bar, each locking rib being located between another surface of the associated wall and another surface of the associated sidewall when located in the second position.

18. A device as set forth in claim 17, wherein each positioning dial includes an angled surface to facilitate a snap-fit connection between the base and the door.

19. A device as set forth in claim 18, wherein each flexible wall has a generally triangular shape.

20. A device as set forth in claim 19, wherein each camming surface is a curved, inwardly extending surface.